UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,568	11/13/2003	Zachary Steven Smith	200208663-1	8795

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER
GORTAYO, DANGELINO N

ART UNIT	PAPER NUMBER
2168	

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/712,568	SMITH ET AL.
	Examiner	Art Unit	
	Dangelino N. Gortayo	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All b)☐ Some * c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-29 are pending.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claims 1-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For an invention to be statutory, an invention must disclose a "useful, tangible, and concrete result". The claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (Brenner v. Manson, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966)); In re Fisher, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); In re Ziegler, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

Claim 1 recites the limitation "determining an overall probability as to whether the identified bugs are the same as the bug in question". Claims 15 and 21 also recite a similar limitation. The claims fail to produce a useful, concrete, or tangible result. Rather, the claims find the probability of similarity, which is not a tangible result. Claim 25 recites the limitation "calculate an overall probability of each bug being the same bug

as the bug in question using the determined probabilities". Claim 28 also recites a

similar limitation. The claims fail to produce a useful, concrete, or tangible result.

Rather, the claims calculate a probability of similarity, which is not a tangible result.

Proper correction is required.

4.   Claims 15-24 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter. The claim refers to a system, but lacks any

tangible hardware, memory, input/outputs, and sources. The claim refers to the method

of claim 15, which is disclosed as software, with no reference to hardware. Proper

correction is required.

Specification

5.   Applicant is reminded of the proper language and format for an abstract of the
disclosure.

The language should be clear and concise and should not repeat information
given in the title. It should avoid using phrases which can be implied, such as, "The
disclosure concerns," "The disclosure defined by this invention," "The disclosure
describes," etc.

The Abstract recites "Disclosed are systems and methods" in line 1 and should
be avoided. Proper correction is required.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Hines

("Hines" US Patent 6,859,893 B2)

As per claim 1, Hines teaches "A method for identifying similar bugs, comprising:"

(see Abstract and Figures 3E, 3F, and 3G)

"generating a database that contains database tokens that relate to identified

bugs;" (Figure 1 reference 172 and column 8 lines 50-56 "bug history database")

"generating input tokens associated with a bug in question;" (column 13 line 62 -

column 14 line 2, wherein a list of bugs and parameters for the bug is extracted)

"scanning the database for occurrences of the input tokens;" (column 14 lines 3-

11)

"and determining an overall probability as to whether the identified bugs are the

same as the bug in question." (column 14 lines 17-31)

As per claim 2, Hines teaches "generating a derivative database from a bug

database that contains failing results files." (column 9 lines 6-16)

As per claim 3, Hines teaches "generating database tokens from character

strings of the failing results files." (column 14 lines 11-16)

As per claim 4, <u>Hines</u> teaches "generating tokens for character strings that are proximate to the term "error" in the failing results files." (column 14 lines 43-51, wherein different types of error are found)

As per claim 5, <u>Hines</u> teaches "generating tokens for character strings that comprise at least one of letters, numbers, and underscores." (column 14 lines 43-51)

As per claim 6, <u>Hines</u> teaches "noting the number of times each token occurs relative to each bug of the database." (column 14 lines 24-31, wherein a list of bugs is shown, including number of appearances)

As per claim 7, <u>Hines</u> teaches "generating tokens from character strings of an input failing results file of the bug in question." (column 13 line 66 – column 14 line 2)

As per claim 8, <u>Hines</u> teaches "scanning the tokens of the database to identify matches for the input tokens." (column 14 lines 3-8)

As per claim 9, <u>Hines</u> teaches "identifying the number of occurrences of each input token in the database relative to each bug of the database." (column 14 lines 24-31)

As per claim 10, <u>Hines</u> teaches "summing the total number of occurrences of each input token in the database and normalizing the total number of occurrences of each input token as to each bug of the database." (column 13 lines 40-54)

As per claim 11, <u>Hines</u> teaches "scaling normalized values that result from the normalizing to obtain scaled probabilities as to each input token relative to each bug of the database." (column 13 lines 33-40)

As per claim 12, <u>Hines</u> teaches "determining the standard deviance for each scaled probability and removing bug tokens from consideration that are associated with an input token having a deviance below a predetermined minimum deviance." (column 13 lines 33-40)

As per claim 13, <u>Hines</u> teaches "determining the overall probability as to all bugs using the scaled probabilities associated with those bugs." (column 13 lines 33-40)

As per claim 14, <u>Hines</u> teaches "applying Bayes' Theorem to the scaled probabilities to calculate the overall probability for each bug as being the same bug as the bug in question." (column 13 lines 33-40)

As per claim 15, <u>Hines</u> teaches "A system for identifying similar bugs, comprising:" (see Abstract)

"means for generating input tokens associated with a bug in question;" (column 13 line 62 - column 14 line 2, wherein a list of bugs and parameters for the bug is extracted)

"means for scanning a database that associates bugs with database tokens pertaining to bugs for occurrences of the input tokens;" (column 14 lines 3-11)

"and means for determining an overall probability for each bug of the database of being the same bug as the bug in question." (column 14 lines 17-31)

As per claim 16, <u>Hines</u> teaches "means for generating tokens from character strings of an input failing results file for the bug in question." (column 14 lines 43-51)

As per claim 17, <u>Hines</u> teaches "means for scanning the database tokens to identify matches for the input tokens and means for identifying the number of occurrences of the input tokens in the database relative to each potential bug." (column 14 lines 24-31

As per claim 18, <u>Hines</u> teaches "means for determining a probability that a bug is the same relative to each database token associated with the bug." (column 13 lines 33-40)

As per claim 19, <u>Hines</u> teaches "means for applying Bayes' Theorem to those probabilities to calculate the overall probability for each bug as being the bug in question." (column 13 lines 33-40)

As per claim 20, <u>Hines</u> teaches "means for generating the database from failing results files contained in a bug database." (column 14 lines 11-16)

As per claim 21, <u>Hines</u> teaches "A system stored on a computer-readable medium, the system comprising:" (see Abstract)

"logic configured to generate a database that associates bugs with tokens derived from failing results files of the bugs;" (Figure 1 reference 172 and column 8 lines 50-56 "bug history database")

"logic configured to generate input tokens from an input that describes a bug in question;" (column 13 line 62 - column 14 line 2)

"logic configured to identify the number of occurrences of each of the input tokens in the database as per each potential bug;" (column 14 lines 3-11)

"and logic configured to determine an overall probability of each bug being the same as the bug in question relative to the number of occurrences." (column 14 lines 17-31)

As per claim 22, <u>Hines</u> teaches "the logic configured to generate input tokens is configured to generate tokens from character strings of an input failing results file." (column 14 lines 11-16)

As per claim 23, <u>Hines</u> teaches "the logic configured to determine the overall probability is configured to determine probabilities as to each bug relative to database tokens associated-with those bugs." (column 13 lines 40-54)

As per claim 24, <u>Hines</u> teaches "the logic configured to determine the overall probability is further configured to apply Bayes' Theorem to the determined probabilities to calculate the overall probability for each bug of being the bug in question." (column 13 lines 33-40)

As per claim 25, <u>Hines</u> teaches "A bug similarity system stored on a computer-readable medium, the system comprising:" (see Abstract)

"a derivative database generator that is configured to generate a derivative database that contains a plurality of database tokens that are associated with identified bugs;" (Figure 1 reference 172 and column 9 lines 6-16)

"and an similarity calculator that is configured to: generate input tokens from an input that describes a bug in question," (column 13 line 62 - column 14 line 2, wherein a list of bugs and parameters for the bug is extracted)

"determine the number of occurrences of the input tokens in the derivative

database relative to each bug," (column 14 lines 3-11)

"determine the probability of each bug being the same bug as the bug in question

relative to each input token," (column 14 lines 17-31)

"and calculate an overall probability of each bug being the same bug as the bug

in question using the determined probabilities." (column 13 lines 40-54)

As per claim 26, Hines teaches "generate the database tokens from character

strings contained in failing results files of a bug database." (column 14 lines 11-16)

As per claim 27, Hines teaches "calculate the overall probability by applying

Bayes' Theorem to the determined probabilities." (column 13 lines 33-40)

As per claim 28, Hines teaches "A computer system, comprising:" (see Abstract)

"a processing device;" (Figure 1 reference 130)

"and a memory that comprises a bug similarity system, the bug similarity system

being configured to generate a first set of tokens for each of several bugs," (Figure 1

reference 172 and column 8 lines 50-56) "generate input tokens from an input that

describes a bug in question," (column 13 line 62 - column 14 line 2) "determine the

number of occurrences of the input tokens in the first sets of tokens," (column 14 lines

24-31) "determine the probability as to each of the bugs of whether each bug is the

same bug as the bug in question relative to each input token, and calculate an overall

probability as to whether the bugs are the same bug as the bug in question using the

determined probabilities." (column 13 lines 40-54)

As per claim 29, <u>Hines</u> teaches "calculate the overall probability by applying

Bayes' Theorem to the determined probabilities." (column 13 lines 33-40)

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Wygodny et al. (US Patent 6,282,701 B1)

Ikeda et al. (US Patent 6,853,959 B2)

Rabideau et al. (US Patent 6,959,287 B2)

Larsson et al. (US Patent 7,062,670 B1)

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dangelino N. Gortayo whose telephone number is

(571)272-7204. The examiner can normally be reached on M-F 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dangelino N. Gortayo   Tim T. Vo
Examiner   SPE

TIM VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100